Office of the Assistant Secretary of Defense for
Command, Control, Communications and Intelligence

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Monday, December 2, 1991

To: Mr. Denis Brown
From: Paul A. Strassmann

The principal rationale for consolidating Data Centers under professionally guided senior Management is to achieve continuous reductions in unit costs while improving the quality and technology of services.

This approach should govern your long-term dealings with DFAS. To illustrate what is feasible, enclosed is copy of correspondence which describes recent productivity gains at the Xerox Computer Center, which I founded in 1971:

Exhibit I: Shows a 60% reduction in the costs per minute in the Xerox dedicated switched voice network over a recent 9 year period. [Note: The dedicated network was originally installed in 1974 and in the first three years reduced the costs per minute by 72%].
Exhibit II: Shows a 23% compound productivity growth per year for mainframe operations. [Note: This just about tracks consistently the experience in the prior decade.]
Exhibit IV: Shows unit price reductions in the 20-30% compound rate per year for a variety of services.

The above trends and prices are comparable with what commercial facility management organizations have delivered consistently over a decade. Xerox benchmarks their prices against competition every two years and I expect that DISA will adopt the identical practices.

I trust the above cost data are helpful in setting the expectations what DISA ought to ultimately deliver after a period of orderly and evolutionary consolidations.

Paul A. Strassmann

ic: Andrews, Conte, Kendall, Grimes, ITPB, Oxley, Short, Shycoff

XEROX   May 22, 1991

Mr. Paul A. Strassmann
Director, Defense Information
Office of Assistant Secretary Defense (C3I)
Pentagon (Room 3D200)
Washington, DC 20301-3040

Dear Paul,

My apologies for not getting the attached information to you sooner.
Between my traveling, plus no longer having total control of the data
sources, delays occurred. The good news is that I believe we have some
good information for you. In the remainder of this memorandum, I will
provide you with an overview of the attached, and some details relative
to the exhibits.

Overview

The five years of information provided are for the long distance network
Intelnet and the Xerox Computer Center (XCC) in Webster. These two
business centers account for roughly 50% of the $150 million budget for
Data Processing & Telecommunication Services (DP&TS). Our pricing
policy is to charge out at rates which are estimated to result in $0 profit.
If profits are achieved, they are returned to customers as rebates at year-
end in proportion to customer usage.

During the past five years, we averaged $30 million of price reductions
and rebates to customers per year. For the entire department, volumes
grew 40% during this period while absolute expenses were reduced by
12%. I have quoted these statistics because you indicated that you had
to reduce expenses by $1.7 billion (or roughly 15%) over the next few
years. I believe that your goal is achievable -- particularly by
implementing unit pricing in conjunction with a Quality Management
Process.

Intelnet

Exhibit I depicts cost and volume information for seven years. Costs are
fully loaded. As you can see, volume since 1986 has been relatively flat
whereas unit costs have been reduced from 31¢ per minute to slightly
above 13¢. You also should be aware that roughly 50% of calls are off-
net, or to non-Xerox locations.

Xerox Computer Center

The story for the XCC cannot entirely be told on one slide because there are 15 products and weighted averages have to be used to analytically derive average price reductions, productivity, volumes, etc. Exhibit II provides a summary of the management information that you requested, and Exhibit III an explanation of the analytic methodology. The remaining computer print outs provide a lot of data which you may want to further manipulate.

Bottomline, for the IBM 390 environment (excludes DEC, HP, Data General, Telecom), absolute costs decreased from $39.4 million to $34.6 million (13%) while volumes almost doubled. Since we did not unit cost the excluded products, I cannot give you accurate figures, but I can assure you that even greater economies were achieved.

Our turnaround occurred in 1984 when we started to benchmark ourselves to other data centers. XCC costs were roughly 35% higher than comparable operations. After we finally got what I will term "religion," pride took over, and we started to achieve significant results. For example:

- Our 1985 price reduction was 20% whereas for the prior five years it averaged 7.5% and never exceeded 11%.

- Manpower in 1984 was 302, but started to drop in 1985 entirely through attrition -- we never had a layoff or forced redeployment.

- We started using PCM's to reduce equipment costs, plus our usage of available CPU time increased dramatically.

- By 1986, we reached cost parity with the companies whose costs were 35% better than us in 1984.

After you have reviewed the information attached, Paul, give me a call and we can discuss if you have any further requirements. I can be reached in the office at (716) 423-9297, or at home (716) 248-2652. I also should note that I have to be in Washington on May 30th. If you want, I can fly down the day before. I look forward to hearing from you.

Sincerely,

Robert J. Michna
Director, Special Projects
Xerox Corporation

Enclosure

RJM:*mam*

EXHIBIT I

CORPORATE INFORMATION MANAGEMENT
DATA PROCESSING AND TELECOMMUNICATION SERVICES

INTELNET OPERATIONS NETWORK HISTORY
MARCH 1991

Year	Cost Min ($) (Spending)	Mo. Minutes (000)	Total Mo. Cost ($000)	Cost Per Min. Reduction Over Base Year 1983
1983	33.7¢	4925	1660	*
1984	34.5¢	5212	1798	(.8¢)
1985	31.1¢	5745	1787	2.6¢
1986	30.7¢	6402	1965	3.0¢
1987	28.0¢	6621	1845	5.7¢
1988	25.3¢	6719	1700	8.4¢
1989	20.7¢	6804	1408	13.0¢
1990	17.9¢	6246	1118	15.8¢
1991 YTD	13.4¢	6927	928	20.3¢

EXHIBIT II

DATA PROCESSING AND TELECOMMUNICATION SERVICES

XEROX COMPUTER CENTER

PERFORMANCE SUMMARY

	1986	1987	1988	1989	1990	1986/90 CAGR
IBM 390 ENVIRONEMENT						
●Absolute Costs ($M)	$39.4	$35.2	$35.0	$33.0	$34.6	(3.3)%
VOLUME GROWTH						
● Annual %	--	11%	18%	17%	24%	17%
● CUM %	--	11%	30%	52%	88%	17%
PRODUCTIVITY						
● $ MILLIONS	N/A	$12.6	$9.2	$12.0	$8.3	NM
● %	N/A	26%	21%	27%	19%	23%
PRICING						
● Reduction	15%	18%	31%	31%	16%	24%
● Customer Cost vs. 1986	$1.00	82¢	57¢	39¢	33¢	24%
MANPOWER						
● Headcount	268	255	254	242	232	(3.7)%
● Cost ($M)	$12.1	$11.8	$12.5	$12.5	$12.2*	.2%

If 1986 labor cost is inflated for average merit increases and promotion rates, 1990 labor cost would be $15.3 million, or $3.1 million higher than actuals..

Product Prices	1986	1987	1988	1989	1990
Batch CPU	$560.00	$400.00	$333.82	$260.00	$190.00
Task Support	75.00	75.00	50.00	0.00	0.00
RJE CPU (Prime)	945.00	945.00	600.00	475.00	350.00
RJE CPU (Other USMG)	378.00	0.00	0.00	0.00	0.00
RJE CPU (Other D&M)	378.00	378.00	240.00	0.00	0.00
TSO CPU (Prime)	1538.45	2150.00	1100.00	840.00	615.00
TSO CPU (Other USMG)	1538.45	2150.00	0	0	0
TSO CPU (Other D&M)	1538.45	2150.00	440	0	0
IMS CPU	2273.02	2830.00	1611.00	1032.00	965.00
CICS/Inquire CPU	4315.00	6475.00	6475.00	2600.00	2150.00
Disk Storage	2.00	1.60	1.20	.75	.64
Tape Storage	.055	.055	.055	0.00	0.00
Tape Mounts	9.00	7.00	5.50	4.25	3.00
9700 Print	.035	.035	.045	.040	.034
Impact Print	2.75	2.75	5.50	8.00	20.00
Micro Orginal	1.45	1.45	1.45	Eliminated	Eliminated

EXHIBIT IV